

through the cell to near the outer margin pale cream-colour; the inner margin and the fringe cream-colour; secondaries pale buff, in some specimens almost white, with the outer margin brownish black: head and thorax black; abdomen dark bluish green; antennæ black; legs metallic green.

Expanse  $1\frac{1}{2}$  inch.

*Hab.* Ecuador, Chiguinda (*Buckley*).

This species is closely allied to *H. nantana*, Walker, its chief difference being the colour of the secondaries. I have a good series of specimens of both sexes before me; they do not show the faintest trace of carmine in the hind wings.

#### EXPLANATION OF THE PLATES.

##### PLATE XXXIX.

- |   |  |
|---|--|
| Fig. 1. <i>Eupyra herodes</i> , p. 372.   | Fig. 7. <i>Erruca lycopolis</i> , p. 375.  |
| 2. — <i>cephalena</i> , p. 372.           | 8. <i>Sphecosoma surrentum</i> , p. 375.   |
| 3. <i>Calonotus flavicornis</i> , p. 373. | 9. <i>Dycladia felderi</i> , p. 377.       |
| 4. <i>Isanthrene thyestes</i> , p. 374.   | 10. — <i>chalonitis</i> , p. 378.          |
| 5. <i>Homœocera buckleyi</i> , p. 374.    | 11. <i>Eunomia ocina</i> , p. 379.         |
| 6. — <i>ozora</i> , p. 374.               | 12. <i>Argyrocydes boliviana</i> , p. 379. |

##### PLATE XL.

- |  |   |
|--|---|
| Fig. 1. <i>Charidea bertha</i> , p. 381. | Fig. 7. <i>Automolis asara</i> , p. 382.  |
| 2. — <i>imperialis</i> , p. 380.         | 8. — <i>superba</i> , p. 382.             |
| 3. — <i>cleasa</i> , p. 380.             | 9. <i>Zatrephes buckleyi</i> , p. 383.    |
| 4. — <i>buckleyi</i> , p. 381.           | 10. — <i>chaon</i> , p. 383.              |
| 5. <i>Zatrephes grandis</i> , p. 383.    | 11. <i>Androcharta eassotis</i> , p. 382. |
| 6. <i>Evius polyxenus</i> , p. 383.      |   |

#### 5. Note on the Variation of certain Species of *Agrias*.

By F. D. GODMAN, F.R.S., and O. SALVIN, F.R.S.

[Received May 5, 1883.]

Since writing our paper on *Agrias stuarti* (P. Z. S. 1882, p. 338, t. 19), Mr. A. Maxwell Stuart has again visited the Amazons, and at Yquitos, where he captured the original type, has succeeded in taking four more specimens, three males and one female, of this magnificent Butterfly, all of which he has most generously placed in our collection.

Noticing considerable variation in the series thus acquired, and hearing that Dr. Staudinger had also recently received two specimens from his excellent collector, Dr. Hahnel, from Pebas on the Amazons, we wrote to the former gentleman asking him if he would kindly allow us to see his specimens. These, together with two of *A. phalcidon*, which will be referred to below, he has most obligingly sent us. Thus, with the type of *A. beatifica* in the British Museum and the female described in our paper from our own collection, we have before us seven males and two females of these insects.

The characters on which we relied in separating *A. stuarti* from *A. beatifica* were the greater extent of the purplish-blue colour at

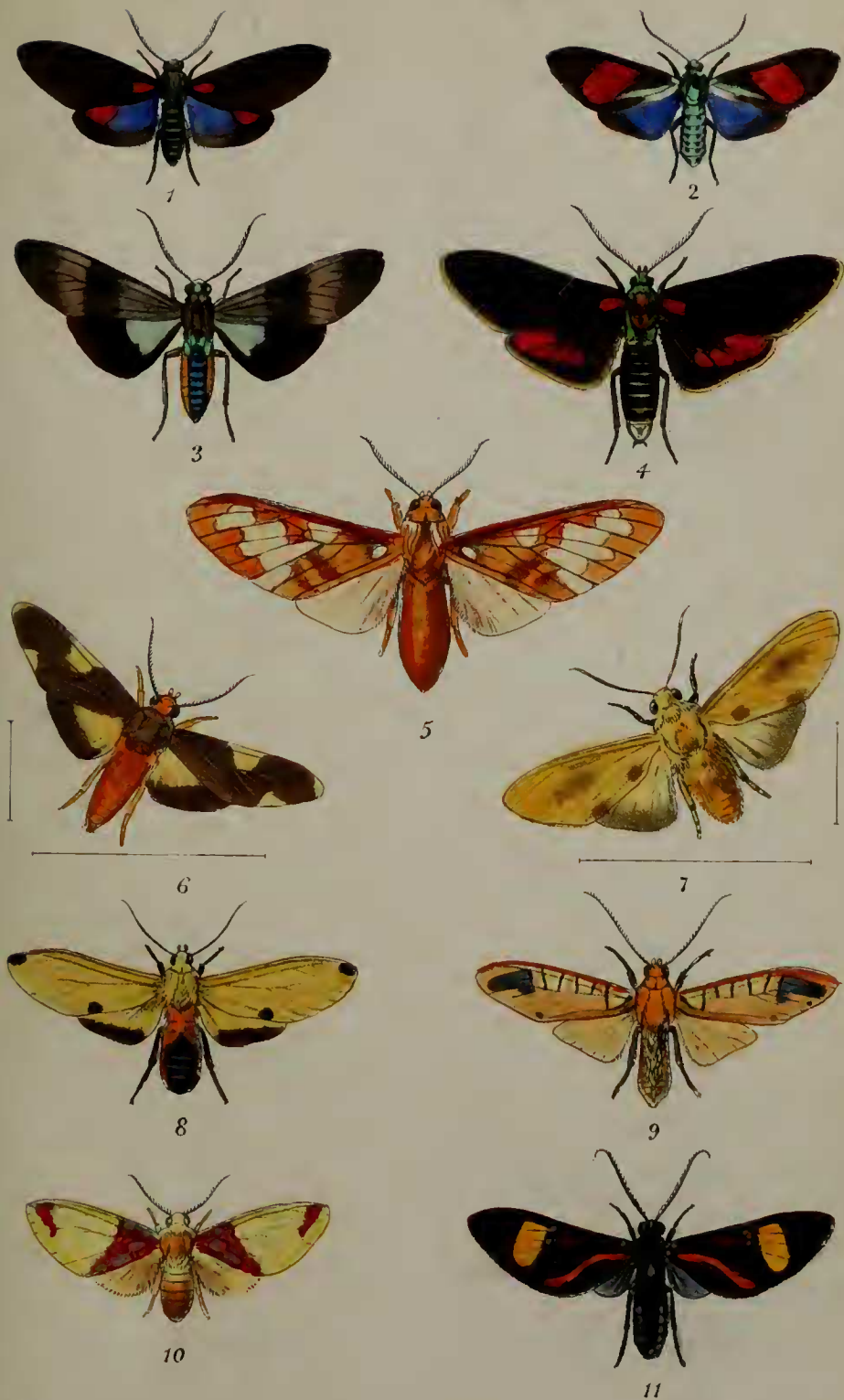


W Parkes del.

Hannart imp.

NEW ZYGÆNIDÆ.





W. Purkiss lith

Hanhart imp.



the expense of the green on the upper surface, and the greater size of the black submarginal spots of the secondaries beneath. To this we may add that the blue of the primaries is almost uninterruptedly black, whereas in *A. beatifica* a nearly continuous black band extends across from the costa to the inner margin. These differences are entirely broken down by the series now before us.

One of Mr. Stuart's specimens has a broader green submarginal band than even the type of *A. beatifica*, another has still less than the type of *A. stuarti*, while the remaining specimens, including those of Dr. Staudinger, serve to link the whole series together. There are other points of variation to which it is necessary to allude. One of these refers to the innermost or first band of black spots on the secondaries beneath. In the type of *A. beatifica* and in one of the Pebas specimens they are clearly defined; in the other Pebas specimen they are entirely absent, while in the remaining Yquitos examples they appear to a variable extent. The colour of the base of the secondaries on the underside varies from Indian red to orange. Seeing, therefore, that no two of the series are alike, and that the two extremes of variation are found in insects flying in the same forest, we are compelled to alter our views as to the distinctness of *A. stuarti*, and to consider it but a variety of *A. beatifica*.

Respecting the habits of this insect, Mr. Stuart informs us that though he frequently observed this species in the forests of Yquitos, they were nowhere abundant, two specimens or so appropriating a limited portion of the forest to themselves. Their rapid and lofty flight is well known; but Mr. Stuart observed that they passed the same place about once only in every four hours during the day.

The synonymy of *A. beatifica* will now stand as follows:—

#### AGRIAS BEATIFICA.

*Agrias beatifica*, Hew. Equat. Lep. p. 30; Ex. Butt. iii. t. 2. f. 5, 6; Godm. & Salv. P. Z. S. 1882, p. 338, t. 19. f. 3, 4.

*Agrias stuarti*, Godm. & Salv. P. Z. S. 1882, p. 338, t. 19. f. 1, 2.

*Hab.* Ecuador, Sarayacu (*Buckley*); Upper Amazons, Yquitos (*A. M. Stuart*), Pebas (*Hauwvell* and *Hahnel*).

*Mus.* Brit., Godm. & Salv., Dr. O. Staudinger.

The two specimens of *A. phalcidon* already referred to as sent us by Dr. Staudinger are interesting as showing that a similar state of variation exists in this species as we have already stated is found in *A. beatifica*.

*A. phalcidon* was discovered at Villa Nova on the Lower Amazons by Mr. H. W. Bates during his memorable expedition. Seven specimens in the British Museum (including four in the Hewitson collection) and four in our own were all probably taken by Mr. Bates. The two examples in Dr. Staudinger's collection were captured by Dr. Hahnel at Villa Bella, a more recent name apparently than Villa Nova for the same village, which is situated on the south bank of the Amazons between the mouths of the Tapajos and Madeira rivers.

These eleven specimens are all males, and the green submarginal



band in most of them is well defined, but in some it is wider than in others. In one of Dr. Staudinger's examples, however, this band is evanescent, and the rich blue of the upper surface of the wings almost reaches to the transverse spots which cross the apex of the wing. There is a black spot within the cell, but this colour does not extend beyond it as in more typical examples. Between this extreme example and the type, the specimens before us may be arranged so as to some extent to bridge the gap between them; but the series is not so complete as that of *A. beatifica* described above.

6. Report on a Collection of Reptiles and Batrachians from the Timor Laut Islands, formed by Mr. H. O. Forbes.  
By G. A. BOULENGER, F.Z.S.

[Received April 30, 1883.]

(Plates XLI. & XLII.)

The Reptiles and Batrachians collected by Mr. Forbes in the Timor Laut Islands, and presented to the British Museum by the British Association, belong to 17 species, which, with the exception of two new to science, were already well known from different parts of the Austro-Malayan Subregion. The two new species are a Lizard of the Australian genus *Lophognathus*, Gray, and a Snake of the Indian genus *Simotes*, D. & B. The latter is the most remarkable discovery, as no species of this genus was known to occur eastwards of Java.

The following is a list of the species collected:—

REPTILIA.

LACERTILIA.

1. GECKO VERTICILLATUS, Laur.
2. PERIPIA MUTILATA (Wieg.).
3. VARANUS INDICUS (Daud.).
4. ABLEPHARUS BOUTONII (Desj.) [*A. pœcilo pleurus*, Wiegm.].
5. EUPREPES RUFESCENS (Shaw).
6. EUPREPES CYANURUS (Less.).
7. LYGOSOMA SMARAGDINUM (Less.).
8. BRONCHOCELA MOLUCCANA (Less.).
9. LOPHOGNATHUS MACULILABRIS, sp. n. (Plate XLI.)

Snout obtuse, as long as the distance between the orbit and the posterior border of the ear. Nostril equally distant from the orbit

Murtern Bros nyp

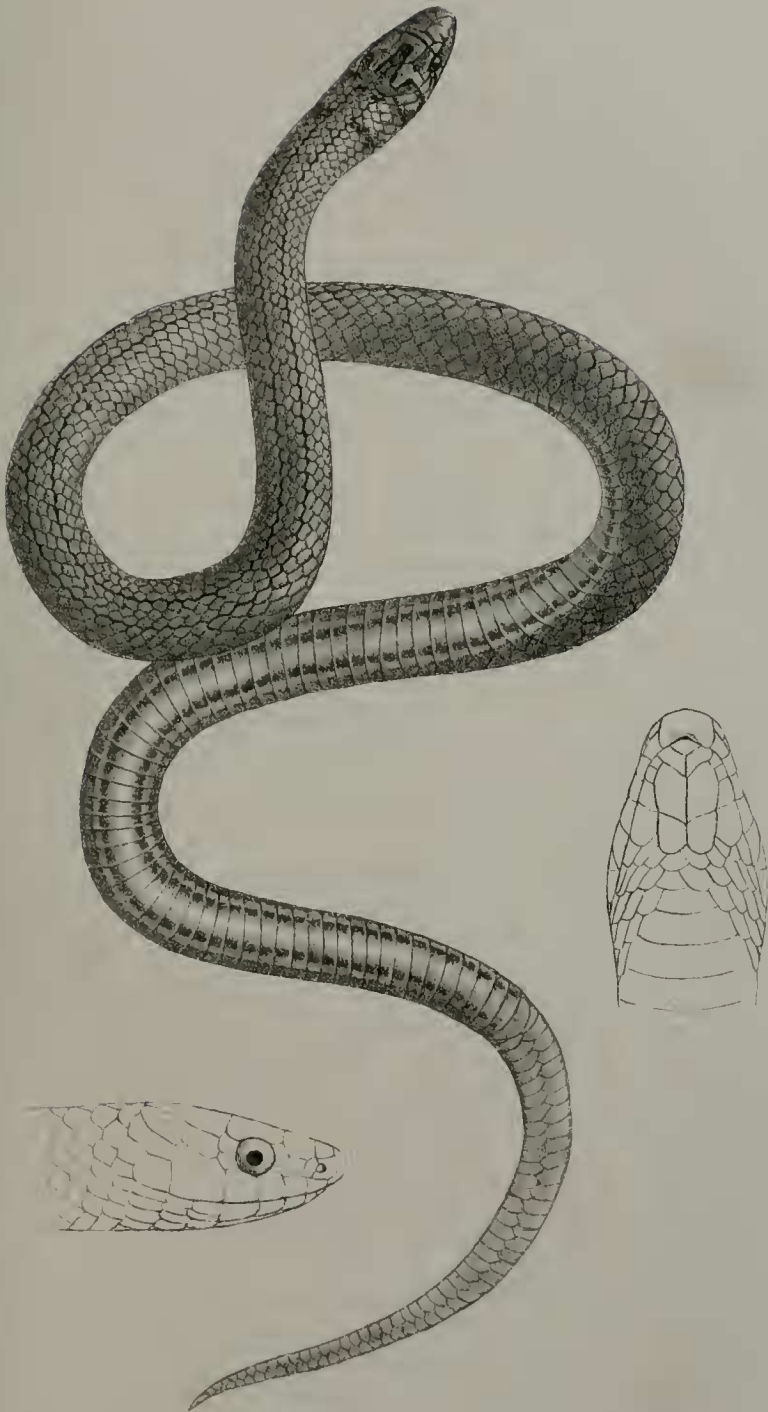
LOPHOGNATHUS MACULILABRIS.

J Smit del. et lith.











and the tip of the snout. Upper surface of head covered with very strongly keeled scales. Dorsal scales small, the upper largest, strongly keeled, all obliquely directed upwards. Gular and ventral scales strongly keeled, the latter larger than the largest dorsal scales. No femoral or præanal pores. Upper surfaces olive, with blackish transverse markings across the back, tail, and limbs; upper surface of head with three obsolete blackish transverse bands, separated by light lines; a broad blackish band from orbit to tympanum, bordered inferiorly by a light band extending to above the fore limb; lips light-coloured, variegated with blackish; lower surfaces whitish, dotted all over with blackish.

Two specimens; the largest measures:—

	millim.
Total length . . . . .	388
From tip of snout to vent . . . . .	98
"    "    fore limb . . . . .	43
Length of head (to occiput) . . . . .	22
Width of head . . . . .	17
Fore limb . . . . .	46
Hind limb . . . . .	94
Tail . . . . .	290

#### OPHIDIA.

10. *PYTHON RETICULATUS* (Schn.).
11. *LIASIS AMETHYSTINUS* (Schn.).
12. *ENYGRUS CARINATUS* (Schn.).
13. *SIMOTES FORBESI*, n. sp. (Plate XLII.)

Length of snout measuring twice the diameter of the eye. Nasal divided; loreal slightly higher than broad; one præ- and two post-oculars; temporals 1 + 2; seven upper labials, the third and fourth entering the orbit; four inferior labials in contact with anterior chin-shields; latter, hinder pair three fifths the length of anterior pair. The portion of the rostral seen from above is as long as the suture between the internasals and the præfrontals; latter considerably higher than internasals. Frontal longer than its distance from the tip of the snout, as long as parietals. Scales in 17 rows. Ventrals slightly keeled on the sides, 155 or 165; anal entire; subcaudals 45. Upper surfaces greyish brown, the borders of the scales darker; head with the ordinary symmetrical dark markings; the inner border of the seventh longitudinal series of scales, counted on each side from the gastrosteges, darker, thus forming two fine vertebral lines separated from each other by three rows of scales; belly yellowish, each ventral shield with a brown spot near the lateral edge, these spots more or less confluent into a dark streak, separated from the dorsal brown colour by a pure yellowish streak of equal width; in one of the two specimens the ventrals become gradually entirely brown towards the posterior part of the body,

except the lateral outer streak, which remains pure yellowish. Head and body  $30\frac{1}{2}$  centim.; tail 58 millim.

14. *DENDROPHIS PUNCTULATUS* (Gray).

15. *CHRYSOPELEA RHODOPLEURON* (Reinw.).

#### BATRACHIA.

16. *RANA PAPUA*, Less.

17. *HYLA DOLICHOPSIS* (Cope).

June 19, 1883.

Prof. Flower, LL.D., F.R.S., President, in the Chair.

The Secretary read the following report on the additions to the Society's Menagerie during the month of May 1883:—

The total number of registered additions to the Society's Menagerie during the month of May was 123, of which 48 were by presentation, 29 by purchase, 7 by birth, 1 by exchange, and 38 were received on deposit. The total number of departures during the same period, by death and removals, was 134.

The most noticeeable additions during the month of May were as follows:—

1. A hen Cabot's Tragopan (*Cerionis caboti*), from South-west China, purchased May 18th, being the first example of the female of this fine Pheasant which we have received.

2. Four Pygmy Hogs (*Porcula salvania*), born in the Gardens, May 23.

These diminutive Pigs, of which I exhibit a drawing of the natural size (Plate XLIII.), did not, unfortunately, survive their birth; but the fact of the species having bred in captivity is of great interest, and we may hope for better success on a future occasion, as although we have lost one of our specimens, which will be the subject of Dr. Garson's paper to-night, the others are alive and well.

3. A fine example of the Suruecu or Bush-master Snake of South America (*Lachesis mutus*), presented by Henry Y. Barkley, Esq., of Pernambuco, on the 22nd of May.

The following extract was read from a letter addressed to the Secretary by Mr. Albert A. C. Le Souëf, C.M.Z.S., dated Melbourne, April 18th, in which attention was called to a curious fact in connexion with the Satin Bower-bird (*Ptilonorhynchus holosericeus*):—

"I have frequently noticed in the hill-country east of Melbourne large flocks of the Satin Bower-bird, sometimes over a hundred together, but have hardly ever seen more than three or four black individuals, the rest being green; and it has always seemed singular to me that there should be such a small proportion of adult males.

"About eight years ago I caged a number of these interesting birds, eight or ten green and two black. The black birds died





J. Smit lith.

PORCULA SALVANIA, pull.

Hanhart imp.



within two years; but most of the green ones are still living, and one of them has just changed its plumage. I first noticed the black feathers appearing about two months ago, and now it is altogether of a glossy blue-black, being, I suppose, about ten years old, but possibly more. This proves, I think, that only the very old cocks change their colour, and soon die off afterwards, which would account for the very few black cocks to be met with in the bush."

Remarking upon this, Mr. Sclater said that there was no doubt that these Bower-birds were a long time assuming the adult dress, but that male birds in full plumage had certainly lived for several years in the Society's Gardens.

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Prof. E. Ray Lankester, F.R.S., read a memoir on the muscular and endoskeletal systems of *Limulus* and *Scorpio*, drawn up by himself with the assistance of his two pupils, Mr. W. J. Barham and Miss E. M. Beck. These investigations seemed to confirm Prof. Lankester's previously expressed views as to the near affinity of these two forms, hitherto usually referred to different classes of the animal kingdom, and to justify the association of *Limulus* with the Arachnida.

This paper will be printed entire in the Society's 'Transactions.'

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The following papers were read:—

1. On the Mollusca procured during the Cruise of H.M.S. 'Triton' between the Hebrides and Faroes in 1882.  
By J. GWYN JEFFREYS, LL.D, F.R.S., F.Z.S.

[Received June 10, 1883.]

(Plate XLIV.)

The sea-bed lying between the Hebrides and the Faroe Islands, or the submarine region now known as the "Faroe Channel," has been partially examined during the last few years for zoological and physical purposes.

In 1868 the first experimental or tentative expedition was made in one of our small Government steam-ships, to explore the deeper parts of the sea around our coasts; and the Surveying-ship 'Lightning' was assigned and equipped for that service. The expedition was placed under the scientific charge of Dr. Carpenter and the late Sir Wyville Thomson; and the results were given by Dr. Carpenter and published in the 'Proceedings of the Royal Society' for December 1868. In that short cruise, part of the submarine region above mentioned was described as the "Warm area," and another part as the "Cold area"—the bottom temperature of the former ranging from 46° to 50° F. and of the latter from 32° to 41°. Dr. Carpenter noticed that the Fauna inhabiting the "Warm" area was comparatively of a North-British type, and that of the "Cold" area more Scandinavian or Boreal. The depths examined in the cruise were from 60 to 650 fathoms.